

### REMARKS

Claims 1- 15 are pending in the present application.

The Applicants wish to thank the Examiner for indicating that claims 1-6, 10 and 14 are allowable. However, in the present Office Action, the Examiner has rejected claims 7-8 and 11-12 under 35 U.S.C. § 102(b) as being anticipated by WO 90/05756 to the Australian Gas Light Company ("AGLC"). The Examiner has also rejected claims 9, 13, and 15 under 35 U.S.C. § 103(a) over AGLC. Applicants respectfully traverse these rejections and the arguments in support thereof as follows, and respectfully request reconsideration and withdrawal of these rejections.

#### Rejection Under § 102(b) Based on AGLC

Regarding claims 7, 8, 11, and 12, the Examiner contends that AGLC discloses adhesives for polyamide materials comprising a phenolic group-containing solvent and a polyamide. The Examiner contends that phenolic solvents are preferred, that the polyamide of the substrate is a preferred additive to the solvent and that substrates include molded pipe fittings. The Examiner further contends that the reference suggests using the composition to adhere two nylon resins together, also suggesting nylon copolymers as substrates. Applicants respectfully traverse this rejection as follows.

At page 11, AGLC teaches that polyamides such as PA 12/12 and PA 6/12 may be utilized, which the Examiner contends are nylon copolymers. However, these polyamides are in fact homopolymers since AGLC uses a different scheme of nomenclature for polyamides (nylons) than in the present invention. The discrepancy may have occurred because prior to the establishment of ISO 1874-1:1992(E), a copy of which is attached, there was no unifying method of naming polyamides. (See Melvin I. Kohan, et al., "Polyamides," Ullmann's Encyclopedia of Industrial Chemistry, 2003, Chapter 2, "p.4," hereinafter "Polyamide Article," a copy of which is attached). The AGLC reference dates back to May 1990, which is before the 1992 date listed on ISO 1874-1.

The nomenclature system according to AGLC is explained as follows:

Specific polyamides (abbreviated to "PA") are identified by numerals which indicate the number of carbon atoms in the carbon chain of each repeating unit of the polymer. Thus, with reference

to Figure 1, PA 11 is the name given to the polyamide polymer in which  $n=10$ , and PA 12 is the name given to the polyamide polymer in which  $n=11$  and so on. In addition, AABB polyamide polymers are known and in that case a designation such as PA 12/12 indicates that the chain is derived from diamine units having 12 carbon atoms and dicarboxylic acid units having 12 carbon atoms. PA 6/12 indicates a chain derived from 6-carbon-atom diamine units co-polymerized with 12-carbon atom dicarboxylic acid units and so on. (pages 4-5 of AGLC)

In other words, the polyamides PA 6/12 and PA 12/12 are each derived from one diamine unit and one dicarboxylic acid unit. However, this nomenclature system in AGLC is completely different from the standard in ISO 1874-1 as discussed below.

One way to create a polyamide is to build it up from a single starting material such as an aminocarboxylic acid. These homopolymer polyamides are designated by "PA #," in which "#" represents the number of carbon atoms in the polyamide chain. (See Table A.1 on p. 9 of ISO 1874-1:1992(E)).

Another way to create a homopolymer polyamide is to prepare it from one starting material containing amino groups and one starting material containing carboxylic acid groups. (See ISO 1874-1:1992(E), p.9; Polyamide Article, p.2) The resulting compound is designated by "PA ####," in which the first two numbers represent the number of carbon atoms in the aliphatic diamine and the second two numbers represent the number of carbon atoms in the aliphatic dicarboxylic acid. (See Table A.2 on p. 9 of ISO 1874-1:1992(E)).

Finally, copolymer polyamides or copolyamides are derived from the combination of two polyamides and are designated "PA ## / ##." (See last paragraph on p. 9 of ISO 1874-1:1992(E); Polyamide Article p. 3, first partial paragraph). The stroke is thus indicative of a copolymer.

In contrast, AGLC does not use the ISO nomenclature system and rather uses a stroke to identify polyamides that are derived from diamine units and dicarboxylic acid units – polyamide homopolymers, not copolymers. Therefore, the compounds taught by AGLC, such as PA12/12, PA 10/10, PA 6/12, PA 6/10, PA 6/6, and PA 4/6 would be named according to ISO 1874-1 as PA 1212, PA 1010, PA612, PA 66, and PA 46. Therefore, it can be understood by one skilled in the art that AGLC was referring to polyamides and not copolyamides, and AGLC does not suggest copolyamides, that is, polyamides prepared from two polyamides.

For these reasons, AGLC neither describes nor suggests the method of claims 7-8 for adhering nylon resin moldings to a joint comprising a copolymerized nylon or a composition comprising a copolymerized nylon using a solvent adhesive.

Further, regarding claims 11 and 12, although AGLC describes that products made from a polyamide are adhered to each other using a solvent adhesive, AGLC describes only PA 11 and PA 12 as the specific examples of polyamides to be used. There is no teaching or suggestion of a material comprising a copolymerized nylon or a compolymerized nylon blend as claimed.

Accordingly, the present invention is not anticipated by nor is it suggested by AGLC, therefore, it is respectfully requested that the § 102(b) rejection be removed and claims 7-8 and 11-12 be allowed.

*Rejection Under § 103(a) Based on AGLC*

Regarding claims 9, 13, and 15, the Examiner acknowledges that AGLC does not exemplify the use of copolyamide materials in the adhesive. However, the Examiner concludes that it would have been obvious to form a solvent adhesive comprising a phenolic solvent and copolymerized nylon to form an adhesive suited for copolymerized nylon materials because AGLC allegedly suggests that adhesion improves when using the same material in the adhesive as is used in the substrate. Applicants respectfully traverse this rejection as follows.

Claims 9 and 13 depend from claims 7 and 12 respectively. As previously explained, AGLC does not teach or suggest all of the elements of claim 7 and 12, such as a copolymerized nylon or compolymerized nylon blend and thus the dependent claims would also not be obvious over AGLC. Further, even if, arguendo, one skilled in the art would be motivated based on AGLC to utilize the same material in the adhesive as is used in the substrate, such a motivation could not result in utilization of a copolyamide in the adhesive as claimed since such a copolymer is not taught or suggested.

Additionally, regarding claim 15, AGLC neither describes nor suggests a claimed solvent adhesive comprising copolymerized nylon.

Based on the arguments from this section and above, claims 9, 13, and 15 are not obvious over AGLC, therefore, it is respectfully requested that the § 103 rejection be removed and that claims 9, 13, and 15 be allowed.

In view of the above remarks, it is submitted that all of the pending claims are patentably distinguished from the cited prior art. Therefore, Applicants respectfully request reconsideration and Notice of Allowance.

Respectfully submitted,

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Enclosures: ISO 1874-1:1992(E); ISO 1043-1:2001; "Polyamides," Melvin I. Kohan, et al.,  
Ullmann's Encyclopedia of Industrial Chemistry, 2003, Chapters 1-3.